



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/741,119	12/20/2000	Jerome H. Simon	04870-P22US	6412

26486 7590 01/24/2002  
PERKINS, SMITH & COHEN LLP  
ONE BEACON STREET  
30TH FLOOR  
BOSTON, MA 02108

EXAMINER

ZEADE, BERTRAND

ART UNIT PAPER NUMBER

2875

DATE MAILED: 01/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/741,119	SIMON, JEROME H.	
	Examiner Bertrand Zeade	Art Unit 2875	
<i>-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --</i>			
<b>Period for Reply</b>			
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.			
<ul style="list-style-type: none"> <li>- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.</li> <li>- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.</li> <li>- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.</li> <li>- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).</li> <li>- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).</li> </ul>			
<b>Status</b>			
<p>1)<input checked="" type="checkbox"/> Responsive to communication(s) filed on <u>20 December 2000</u>.</p> <p>2a)<input type="checkbox"/> This action is <b>FINAL</b>.      2b)<input checked="" type="checkbox"/> This action is non-final.</p> <p>3)<input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i>, 1935 C.D. 11, 453 O.G. 213.</p>			
<b>Disposition of Claims</b>			
<p>4)<input checked="" type="checkbox"/> Claim(s) <u>1-35</u> is/are pending in the application.</p> <p>4a) Of the above claim(s) _____ is/are withdrawn from consideration.</p> <p>5)<input type="checkbox"/> Claim(s) _____ is/are allowed.</p> <p>6)<input checked="" type="checkbox"/> Claim(s) <u>1-35</u> is/are rejected.</p> <p>7)<input type="checkbox"/> Claim(s) _____ is/are objected to.</p> <p>8)<input type="checkbox"/> Claim(s) _____ are subject to restriction and/or election requirement.</p>			
<b>Application Papers</b>			
<p>9)<input type="checkbox"/> The specification is objected to by the Examiner.</p> <p>10)<input type="checkbox"/> The drawing(s) filed on _____ is/are: a)<input type="checkbox"/> accepted or b)<input type="checkbox"/> objected to by the Examiner.</p> <p style="padding-left: 20px;">Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).</p>			
<p>11)<input type="checkbox"/> The proposed drawing correction filed on _____ is: a)<input type="checkbox"/> approved b)<input type="checkbox"/> disapproved by the Examiner.</p> <p style="padding-left: 20px;">If approved, corrected drawings are required in reply to this Office action.</p>			
<p>12)<input type="checkbox"/> The oath or declaration is objected to by the Examiner.</p>			
<b>Priority under 35 U.S.C. §§ 119 and 120</b>			
<p>13)<input type="checkbox"/> Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</p> <p>a)<input type="checkbox"/> All   b)<input type="checkbox"/> Some * c)<input type="checkbox"/> None of:</p> <p style="padding-left: 20px;">1.<input type="checkbox"/> Certified copies of the priority documents have been received.</p> <p style="padding-left: 20px;">2.<input type="checkbox"/> Certified copies of the priority documents have been received in Application No. _____.</p> <p style="padding-left: 20px;">3.<input type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</p> <p style="padding-left: 20px;">* See the attached detailed Office action for a list of the certified copies not received.</p>			
<p>14)<input type="checkbox"/> Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).</p> <p>a)<input type="checkbox"/> The translation of the foreign language provisional application has been received.</p>			
<p>15)<input type="checkbox"/> Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.</p>			
<b>Attachment(s)</b>			
<p>1)<input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2)<input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3)<input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.</p>		<p>4)<input type="checkbox"/> Interview Summary (PTO-413) Paper No(s) _____.</p> <p>5)<input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>6)<input type="checkbox"/> Other: _____.</p>	

Art Unit: 2875

## DETAILED ACTION

### *Specification*

1. Claim 34 is objected to because of the following informalities: line 4 before---parabolic--- the word "obeing" should be ---"of being"---. Appropriate correction is required.
2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 250 words. It is important that the abstract not exceed 250 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: "the first optical element".

Art Unit: 2875

Claim 1 cites "a second optical element" in line 7, but there is no first optical element cited in claim 1 limitations.

5. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the Fresnel lens" in line 9 of the third paragraphs. There is insufficient antecedent basis for this limitation in the claim.

The lack of antecedent basis makes the scope of claim 1 indeterminate, because there is no ---a Fresnel lens---in the preceding paragraphs of claim 1.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Reshetin (US.4,962,450).

Reshetin ('450) discloses a light signaling device having:

Regarding claim 1, a lens system (7) which includes a radially collimating first lens (7) at least partially surrounding the light source (1) and collimating at least some of the light from the

Art Unit: 2875

source (1) to impinge upon surface, and an optical element (see col. 10, lines 37-50) for receiving light rays directing the rays to impinge upon the surface at a position closer to the lens system (7) than the rays from the fresnel (see figs 1-7).

Regarding claim 2, an optical element is a second lens (7) and receives light rays from at least a portion of the Fresnel (see figs. 6-7).

Regarding claim 3, the secondary lens (7) radially surround the light source (1).

Regarding claim 4, the optical element is a first reflector located above the light source (col.2, lines 26-33).

Regarding claim 5, a second reflector (2) which is cylindrical and which reflects light from the light source (1) to the first reflector (see fig. 4).

Regarding claim 6, the optical element is a radially collimating the Fresnel lens which refracts light rays (8, 9) from the light source (1) to impinge upon the surface in a area closer to the lens system (7) than the rays (8) from the Fresnel lens.

Regarding claim 7, the Fresnel lens is a position of and joined to the lens mains (7).

Regarding claim 8, two canted lens ring (23) segments at least partially surrounding the light source (1) and collimating at least some of the light from the light source (1) to impinge upon a surface, the lenses (23) each having an axis which is at least an angle or refracting face (24) to refract light rays (8, 9, 10) from the source toward the surface (see figs.7-8).

Regarding claim 9, the lens ring segments are aspherical (see figs. 1, 7, 10).

Regarding claim 10, the lens ring segments are Fresnel ring elements (see figs. 1-4).

10. Claims 11-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugawara (US.5,160,192).

Sugawara ('192) discloses an illuminating instrument having:

Regarding claim 11, two collimating Fresnel ring lenses (25) adjacent each other; a quasi point light source (27) common to the lenses (25) and arranged in the vicinity where the lenses (25) are closest to one another (see fig. 1-3).

Regarding claim 12, the lenses (25) are arranged at an angle with respect to one another.

Regarding claim 13, the light source (27) has a longitudinal axis arranged approximately parallel to traverse diameters of both lenses (see fig. 9).

Regarding claim 14, a reflector (123) disposed in an open area on the opposite side of the light source (27) from lenses to reflect light from the light source (27) which are not refracted by the lenses.

Regarding claim 15, the light source (27) is mounted for movement along a common axis which bisects the angle between the lenses (see figs. 1-4, 9).

Regarding claim 16, the light source (27) and the lenses are constructed and arranged so that the light the light source (27) is disposed at the focal point of both lenses (see fig. 1).

Regarding claim 17, a third Fresnel lens connected between the other Fresnel lenses (see fig. 3).

Regarding claim 18, the lenses are arranged on the opposite sides of the light source (see fig. 8).

Art Unit: 2875

Regarding claim 19, the lenses each have lateral cent axes and the light source (27) has a vertical axis (x) and a lateral axis (y), one of the lenses being positioned so that its lateral center axis (29) is above the lateral of the light source (27) and the other of the lenses being positioned so that its lateral center axis is below the lateral axis of the light source (27).

Regarding claim 20, the lenses each have lateral cent axes and the light source (27) has a vertical axis (x) and a lateral axis (y), one of the lenses being positioned so that its lateral center axis (29) is above the lateral of the light source (27) and the other of the lenses being positioned so that its lateral center axis is below the lateral axis of the light source (27).

Regarding claim 21, the lenses each have lateral cent axes and the light source (27) has a vertical axis (x) and a lateral axis (y), one of the lenses being positioned so that their lateral center axis (29) are below the lateral of the light source (27).

Regarding claim 22, the lateral axis of one lens is closer to the lateral axis of the light source (27) than the lateral axis of the other lens.

Regarding claim 23, a third lens (15) which at least partially surround the light source (27), the two Fresnel lenses (25) also at least partially surrounding the light source (27).

Regarding claim 24, the lenses have equal F numbers (the ratio of height to distance from the light source (27)).

Regarding claim 25, at least one of the lenses has a different ratio of its height to the vertical dimension of the light source than the other (see fig. 2, 4, 6, 10).

Art Unit: 2875

11. Claims 26-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Simon (US. 5,897,201).

Simon ('201) discloses a lighting distributed from contained radially collimated light having:

Regarding claims 26-27, a quasi point light source (1); at least partially surrounding a reflector (20) on the other side of the light source (2) from the ring lens (12) arranged to reflect light in the same radial plane as projected by the ring lens (12).

Regarding claim 28, the light assembly is constructed and arranged so that reflected in a radial plane parallel to the radial plane of the ring lens (12).

Regarding claim 29, a quasi point light source (1), and an optical system including a plurality of radially collimating ring lenses (12), concentric with one another and the light source (1), the ring lenses (12) being offset vertically with respect to one another.

Regarding claim 30, a quasi point light source (1); a radially collimating ring lens (12) at least partially surrounding the light source (1/2); a refracting ring (20) at least partially surrounding the ring lens (12) and having an inner surface (14) and outer surface (16) being formed into a multiplicity of zones, at least some of the zones having multiple lenses (see figs. 3, 5) therein, the lenses of each zone being of greater power than the lenses of adjacent zones.

Regarding claim 31, the reflector (28) on the other side of the source from the refracting (20).

Art Unit: 2875

Regarding claim 32, a lighting assembly being constructed and arranged to that a defined geometric area on the illuminated surface is evenly lighted (see figs. 10-12).

Regarding claim 33, the refracting ring (20) has sections which have different amounts of light diverging power so as to provide uniform lighting on the ground plane (see figs. 20-30).

Regarding claim 34, a quasi point light source (½); a reflector assembly (see fig. 46), having three reflector sections, one of being parabolic and projecting a collimated beam and the other two sections being ellipsoidal and projecting a combined converging beam, the reflector assembly being constructed and arranged to produce a 180 degree in section columnar beam having varying divergence and concentric brightness.

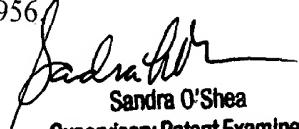
Regarding claim 35, a cone reflector positioned to receive the columnar beam and redirect it as a radially collimated beam (see figs. 24/25).

#### *Contact Information*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bertrand Zeade whose telephone number is (703) 308-6084. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea, can be reached on (703) 305-4939. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Sandra O'Shea  
Supervisory Patent Examiner  
Technology Center 2800

Application/Control Number: 09741119

Page 9

Art Unit: 2875

Examiner: Bertrand Zeade

January 8, 2002.